Abstract of the Disclosure

Pervasive output capability is provided so that an information apparatus can pervasively output digital content to an output device regardless of the processing power, display screen size and memory space of the information apparatus. This allows small mobile devices with limited display, processing power, and memory to be able to output a digital document (e.g., PDF, HTML, PowerPoint etc) in its full original richness, without resorting to downsizing, truncating, reducing, clipping or otherwise altering the original document. A data output service method for rendering at an output device output content managed from an information apparatus may include obtaining by wireless communication from the information apparatus at least part of a document object relating to the output content, obtaining at least part of an output device object with one or more attributes relating to the output device, and providing the document object and the output device object to a server application operated on a server that is distinct from the information apparatus and the output device, and generating with the server application output data relating to the output device. The output data may then be provided to the output device for rendering the output content as the data output service.